IN THE CLAIMS

1. (Currently Amended) A method for transmitting delay sensitive information (DSI) over a communication link of a communication network, the method comprising the steps of:

in response to identifying a received DSI, transmitting an initial DSI after selectively applying a delay to the initial DSI where such delay is based on a determined periodicity of the received DSI and a defined length of non-delay sensitive information (NDSI) being transmitted.

2. (Canceled)

3. (Previously Presented) The method of claim 1, comprising transmitting non-delay sensitive information (NDSI) over the link of the communication network, wherein the delay is further based on a defined length of the NDSI being transmitted.

4. (Previously Presented) The method of claim 1, wherein the step of transmitting DSI comprises:

transmitting NDSI in a non-fragmented manner when there are no DSI to be transmitted;

monitoring for any received DSI;

determining whether the received DSI is an initial DSI;

transmitting the received DSI based on periodicity associated therewith when such received DSI is not an initial DSI; and

performing a fragmentation operation for non-delay sensitive information (NDSI) to be transmitted or for NDSI being transmitted.

5. (Original) The method of claim 4 wherein the fragmentation operation performed is a dynamic fragmentation operation.

6. (Previously Presented) The method of claim 4, wherein the step of determining whether a received DSI is an initial DSI is based on information received from communication equipment.

7. (Previously Presented) The method of claim 4, wherein the step of transmitting the DSI based on periodicity associated therewith is based on information received from communication equipment.

8. (Previously Presented) The method of claim 6, wherein the communication equipment is an integrated access device (IAD).

9. (Previously Presented) The method of claim 6, wherein the communication equipment is subscriber equipment.

10. (Previously Presented) The method of claim 7 wherein the communication equipment is an integrated access device (IAD).

11. (Previously Presented) The method of claim 7, wherein the communication equipment is subscriber equipment.

12. (Original) The method of claim 1 further comprising the steps of:

maintaining a list of transmission times for received initial DSI;

establishing a transmission time for each received initial DSI; and

updating the list when an initial DSI is received or when a DSI flow is terminated.

13. (Previously Presented) An apparatus for transmitting delay sensitive information (DSI) and non-delay sensitive information (NDSI) over a communication link of a communication network, wherein the apparatus selectively applies a delay to received initial DSI based on a determined periodicity of the initial received DSI and a defined length of NDSI being transmitted.

14. (Previously Presented) The apparatus of claim 13 configured as an integrated access device (IAD) coupled to subscriber equipment and to an access network.

15. (Previously Presented) The apparatus of claim 13 configured as part of host equipment, wherein such host equipment is coupled to an access network and to a packet based communication network.

16. (Currently Amended) A method for delaying of transmission of a set of packets associated with a packet flow, the method comprising:

identifying information associated with at least one packet of the set as at least one of delay sensitive information (DSI) or non-delay sensitive information (NDSI); ~~and~~

determining whether the received DSI is an initial DSI; and

selectively applying a delay to the DSI based on at least one parameter associated with a received DSI of the packet and the packet length of the NDSI being transmitted.

17. (Currently Amended) A method, as set forth in claim 16, wherein selectively applying a delay further comprises:

~~determining whether the received DSI is an initial DSI; and~~

~~if so~~ in response to determining that the received DSI is the initial DSI, transmitting the received DSI based on a transmission periodicity of a DSI packet in the set of packets.

18. (Currently Amended) A method, as set forth in claim 17, further comprising:

~~if not~~ in response to determining that the received DSI is not the initial DSI, transmitting the NDSI after applying the delay to the DSI ~~based on the packet length of the NDSI being transmitted~~.

19. (Previously Presented) A method, as set forth in claim 18, further comprising:

transmitting the DSI over a communication link of a communication network.

20. (Previously Presented) A method, as set forth in claim 19, further comprising:

transmitting both the DSI and NDSI over the communication link.